



Patterns of recent employment growth in the EU: implications for gender equality

Background paper

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Despite progress during the last generation, gender gaps in the labour market persist closing only gradually, if at all. At EU level the gap remains at over 17% and has not declined in recent years.¹ Variations in national gender pay gaps around this average figure do not reveal any obvious pattern in terms of economic growth or development; the grouping of countries with the lowest gender pay gaps (<10%) – Belgium, Italy, Malta, Poland and Slovenia – includes both ‘old’ and new Member States with very different rates of employment growth and economic growth. What then are the relationships between growth and gender equality?

In this short report we will try to draw out the implications of recent employment growth for gender equality in the European Union. Our main source will be the report *More and better jobs? Patterns of employment expansion in Europe*² published in September 2008 by Eurofound. The report was based on a detailed analysis of the evolution of employment by sector and occupation in 23 Member States³ and the job quality dimension of this growth. Specifically, one section of the report looks at the gender breakdown of recent employment growth. Complementary data on the gendered division of labour in sectors and occupations is also drawn from the results of Eurofound’s Fourth European Working Conditions Survey⁴, which took place in 2005⁵.

The period covered in the data analysis was one of positive employment growth for the EU, especially in the older Member States. Over 20 million net new jobs were created in what was, in hindsight, something of a golden age in employment creation for European labour markets. What is not so widely appreciated is that the majority of this net employment growth was amongst female workers. From 1995 - 2006, female employment rates for the whole of the EU increased by eight percentage points (from 50 – 58%), while the employment rate for men grew from 70 – 72%. So while a substantial gap persists between women’s and men’s employment rates, the difference did narrow appreciably over this period. Appendix B lists in detail the employment rates for each Member State from 1995 – 2007.

The jobs project data concentrates exclusively on marginal changes in employment levels. As such, it is sensitive in particular to the gender dimensions of employment growth and tends to represent this growth in ways that show interesting differences from the standard Lisbon agenda-based focus on employment rates.⁶

The growth of male and female employment in Europe, 1995 – 2006

Figure 1 shows the total employment growth in the EU15 and new Member States (NMS) from the period 1995 – 2006, disaggregated by gender. The dark blue bars represent job creation for women and the light blue bars represent job creation for men. Note that the graphs represent absolute employment growth in thousands and scales have been adjusted to growth in both country aggregate groupings. In the charts, the first bar to the left represents the 20% of employment

¹ The most recent (2007) estimate for the EU gender pay gap, 17.4%, is in fact larger than previous years’ figures though this may reflect changes in how the estimate is calculated.

² <http://www.eurofound.europa.eu/publications/htmlfiles/ef0850.htm>

³ Due to data availability problems, Poland, Malta, Bulgaria and Romania were not included in the analysis. Data for the NMS is only for the period 2000-6 and refers to the NMS-8, ie. excluding the above member states.

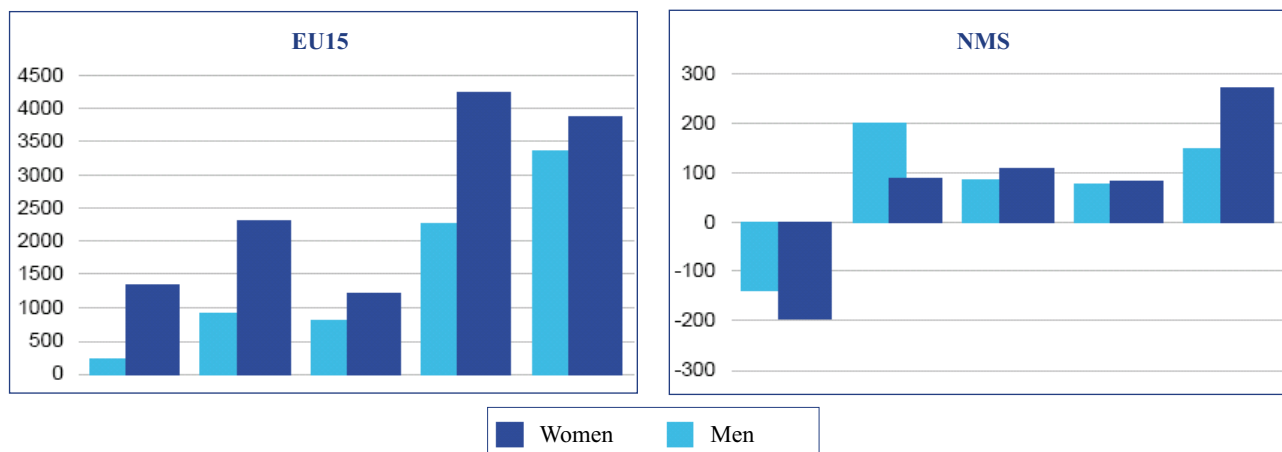
⁴ <http://www.eurofound.europa.eu/publications/htmlfiles/ef0698.htm>

⁵ For further details on the background and methodology of EWCS, along with previous surveys, see: <http://www.eurofound.europa.eu/ewco/surveys/index.htm>

⁶ Appendix A includes a brief outline of the methodology and data sources used to generate the results in this paper.

in the lowest paid jobs and the fifth bar on the right represents the 20% of employment in the highest paid jobs. So, using median hourly pay as a proxy for job quality, we can see for instance that employment growth in the EU15 was significantly skewed to jobs in the top two quintiles (i.e. top 40%) for both men and for women.

Figure 1: *Employment growth 1995 – 2006 (in thousands) by gender and job quality quintile*



Source: *European Jobs Project database*

The figures for the EU15 show clearly that across all five income quintiles the increase in female employment is significantly larger than the increase in male employment. Of the low-paid jobs created however, there were considerably fewer taken up by men than by women. New male employment was mostly concentrated in the upper two quintiles, in the highest paid jobs. Women gained a substantial amount of employment in the second highest quintile largely as a result of the expansion of relatively well-paid jobs in the health and education sectors, in which a large proportion of women are employed.

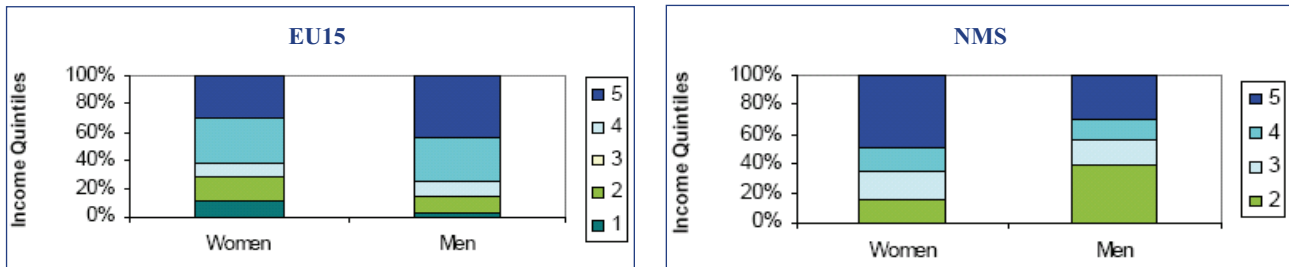
Turning to the NMS, women fared better than men in terms of employment across almost all quintiles: only in the second lowest quintile did men take up more jobs than women. The most significant employment expansion for women was in the upper quintile, while for men it was in the second lowest. But the NMS overall experienced comparatively little employment growth, and there is in fact only a difference of about 100,000 in net employment growth between male and female in the second and fifth quintiles. Overall, men’s and women’s levels of employment growth in the NMS were very similar.

In terms of the quality of the net new jobs created for men and women, in both the EU15 and in the NMS, women experienced a general upgrading of quality in their employment growth. Men also experienced a strong upgrading of job quality in the EU15, but this was not the case in the NMS.

Turning to the composition of quality of employment growth by gender, men fared better than women in the EU15 and worse in the NMS. In the EU15, men’s employment growth was concentrated in the upper two income quintiles, with less growth at the bottom. However men in the NMS had similar concentration of growth across all middle and upper income quintiles, with the strongest growth in the second lowest. Figure 2 below illustrates the percentage of job creation in each quintile for men and women. Taking the two highest quintiles (five and four) as ‘high quality jobs’ and the bottom three as ‘lower quality jobs’ we can see that in the EU15, of the total job creation for women across all five income quintiles, approximately 62% of job creation was in the upper two income quintiles. For men, approximately 74% of job creation was in the upper two quintiles. This shows that men fared relatively better than women in terms of job quality in the EU15 even if in absolute terms, there was more growth in female employment in the top two quintiles. The NMS

tell a different story. 64% of net employment growth for females took place in better paid jobs compared to a figure of 44% for men.

Figure 2: Proportion of employment expansion across the income quintiles (%) ⁷



Source: European jobs project database. Note: negative growth in bottom quintile (Q1) in NMS discounted.

Nonetheless, women in the EU15 between 1995 and 2006 experienced substantial improvements in terms of both quantity and quality of jobs. Despite the fact that job creation for women was less concentrated in the top two quintiles than for men, and many jobs were in low paid jobs, the overall picture is a positive one for women. Employment expansion was much lower in the NMS – though over a shorter period – but the overall pattern of growth was also positive for women, with the majority of expansion in the upper two quintiles. This was not the case for men where there was stronger employment growth at the lower end of the job quality spectrum.

Patterns of employment growth by country, 1995 – 2006

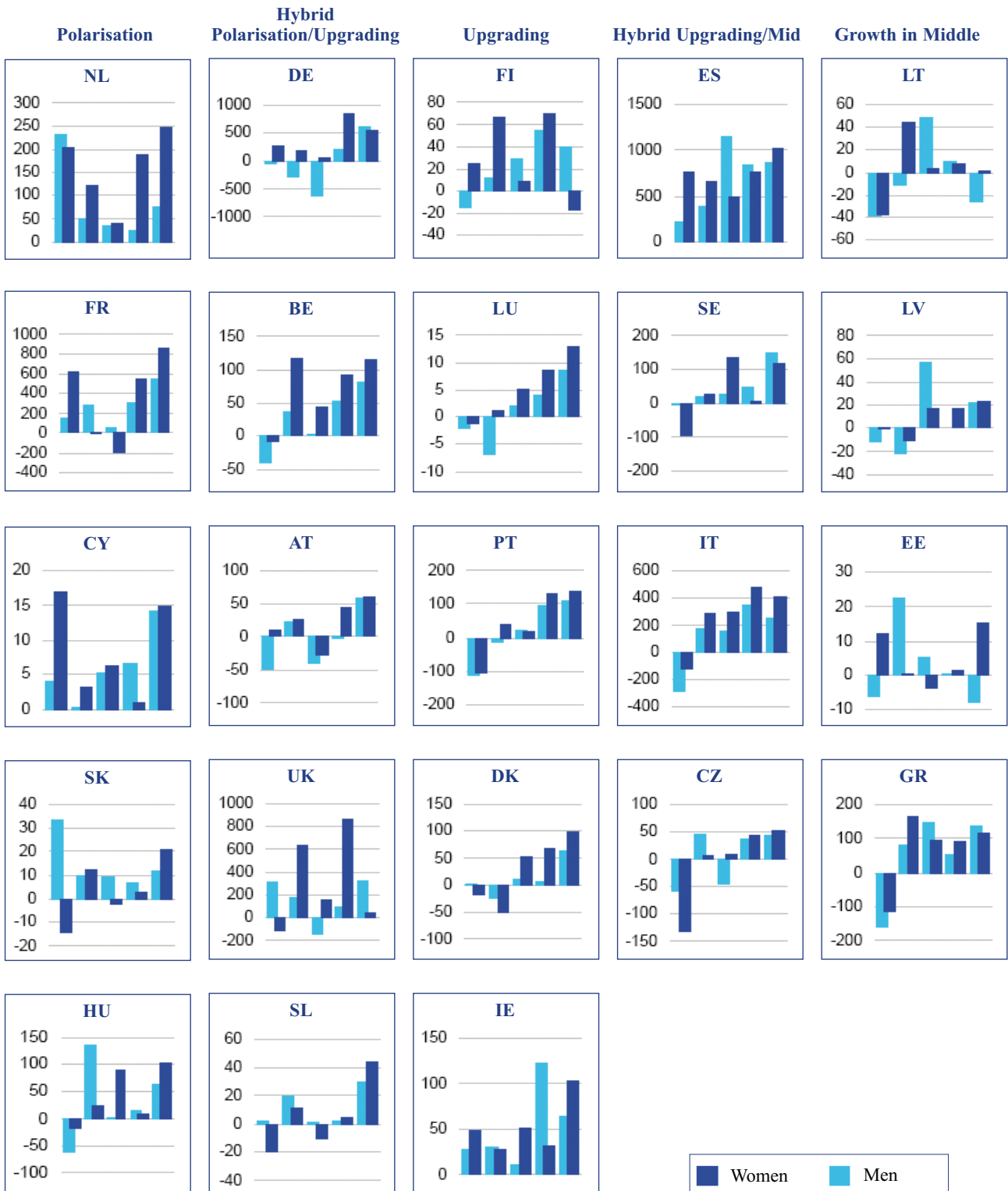
A preliminary categorisation by country of the jobs project data established five different patterns of job growth: polarisation; hybrid polarisation/ upgrading; upgrading; hybrid upgrading/growth in the middle; and growth in the middle. These patterns refer to the overall aggregate data by country and not to the gender breakdowns. Figure 3 displays all the individual Member States as they fall into these categories.⁸

In the polarisation category, women and men actually contributed equally to the growth in the lower quintile (on aggregate: each country displays quite a different pattern within this group), and overall women contribute most to the growth in the upper income quintile. For the upgrading category, women are leading the trend in most countries, with Finland being an exception. Countries which were characterised by growth in the middle tended to have strong employment growth for men in the middle of the income distribution.

⁷ In the NMS, the bottom quintile is discounted as it involved net employment destruction over the period for both men and women.

⁸ Note that growth is recorded in absolute terms with scales adapted for each country. In the main report, tables are also presented showing relative employment growth (% per annum). Note further that the period covered in the following countries differed due to considerations of data availability and data breaks: IT, AT 95-03, CY 99-06, LV, IE, CZ, PT, SK 98-06, EE, FI, HU, SV 97-06, NL, SI 96-06.

Figure 3: Employment growth by job quality, country and gender, 1995 – 2006 (in thousands)



Note: timeframes are different for some Member States due to data issues, cf Hurley, Fernandez Macias 2008, p.93-94.

What is interesting from a gender perspective is that even though the patterns of employment growth at aggregate level (EU15, NMS) are reasonably similar for men and women, at country level some quite stark differences emerge. The Netherlands, for example, is characterised by very gender-polarised employment growth; very little net increase in male employment in the top quintiles but strong growth in the bottom quintile, while net female employment growth is skewed to both extremes of the job quality spectrum. Slovakia also shows a similar pattern. In Germany, all of the ‘hollowing out’ of the labour market – the net loss of medium quality jobs – is accounted for by loss of male jobs.

The gender differences at national level in many cases reflect developments in strongly-gendered occupations such as agriculture and the construction sector during this period. Booming construction sectors, for example, account for the strong growth of medium quality male jobs in the Baltic member states, Ireland and Spain.⁹

Standard country typologies such as Esping-Andersen’s Anglo-Saxon/Nordic/Corporatist categorisations do not offer much assistance in interpreting the country level data (whether broken down by gender or not). Countries within these categories experienced very diverse outcomes in employment growth. Further research is being conducted with the jobs project data to elucidate these differences though it should be pointed out that the nature of the data (net changes in employment levels in the period 1995-2007) tends to emphasise marginal change and is particularly sensitive to the circumstances of the national labour market in the two limit years.

Women’s and men’s employment by sector and occupation

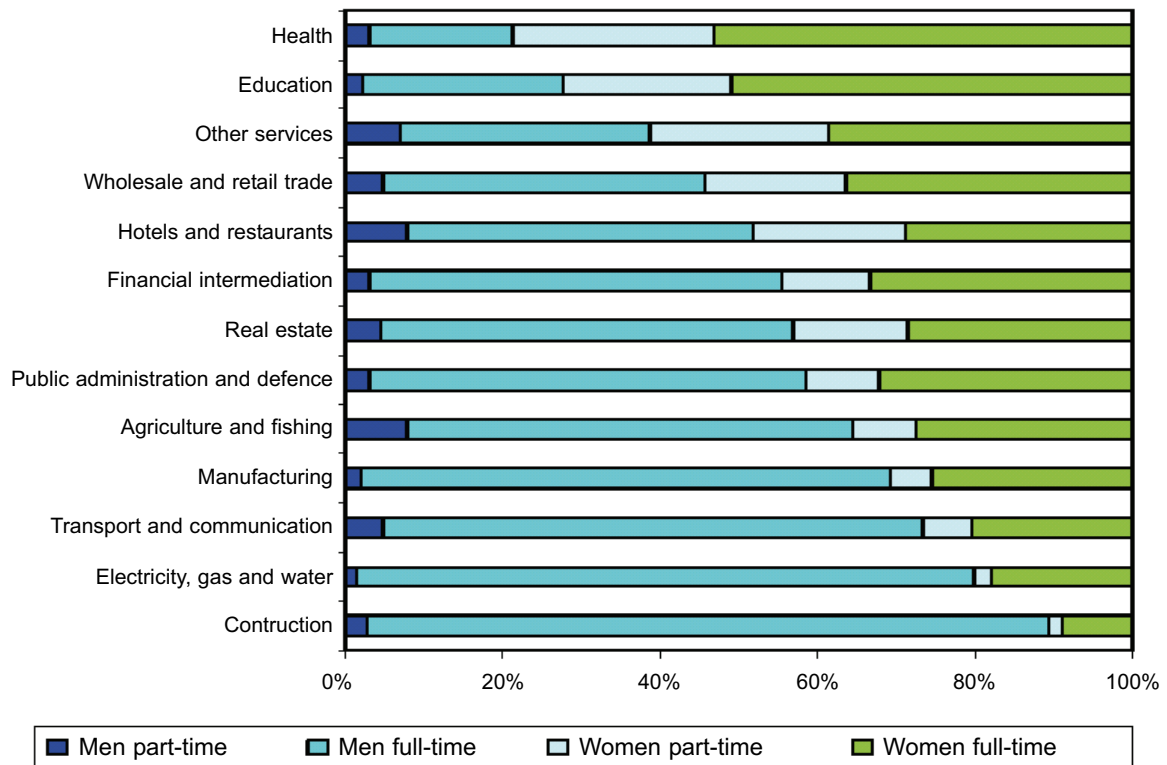
Growth in income quintiles for men and women in some cases reflect growth in certain sectors of employment which are highly gendered. Women’s employment expansion in the second highest quintile in the EU15 was explained by the growth of relatively well paid jobs in the health and education sectors, in which a large proportion of women are employed. Booming construction sectors accounted for the strong employment growth for men in the middle income quintiles in the Baltic member states, Ireland and Spain.

In order to give an outline of the different sectoral and occupational distribution of men and women we will draw on data from the most recent fourth wave of the European Working Conditions Survey (2005), a representative survey involving detailed interviews with 30,000 European workers. The following section provides data on the sectoral and occupational segregation (and also concentration) of women and men.

Sectoral segregation: Figure 4 below illustrates the proportion of men and women in different sectors of employment in 2005, divided also into full-time and part-time workers. Male workers predominate in five sectors: construction; electricity; gas and water; transport and communication; manufacturing; and agriculture. For women, the dominance is in four sectors: health; education; other services; the wholesale and retail trade. The first three of these sectors also have a high proportion of women’s part-time jobs. The highly gendered labour of health, education and construction, meant that men and women gained substantially from the growth in these sectors from 1995-2006. The corollary is that at present, in 2009, the rapid fall-off in construction sector employment in certain Member States which experienced a building boom earlier in the decade is reflected in disproportionately large declines in male employment; thus far in the economic crisis, employment in health and education has tended to be more ‘sticky’.

⁹ Note that the job quality rankings are specific to each country; in Ireland, many construction workers were assigned to the 2nd (medium-high) quintile - a probable consequence of high demand for such workers in the middle of the period covered - while they tend to be placed in the 3rd or 4th quintiles in other Member States.

Figure 4: *Distribution of employment by sector, sex and part-time/full-time status, EU27 (%)*

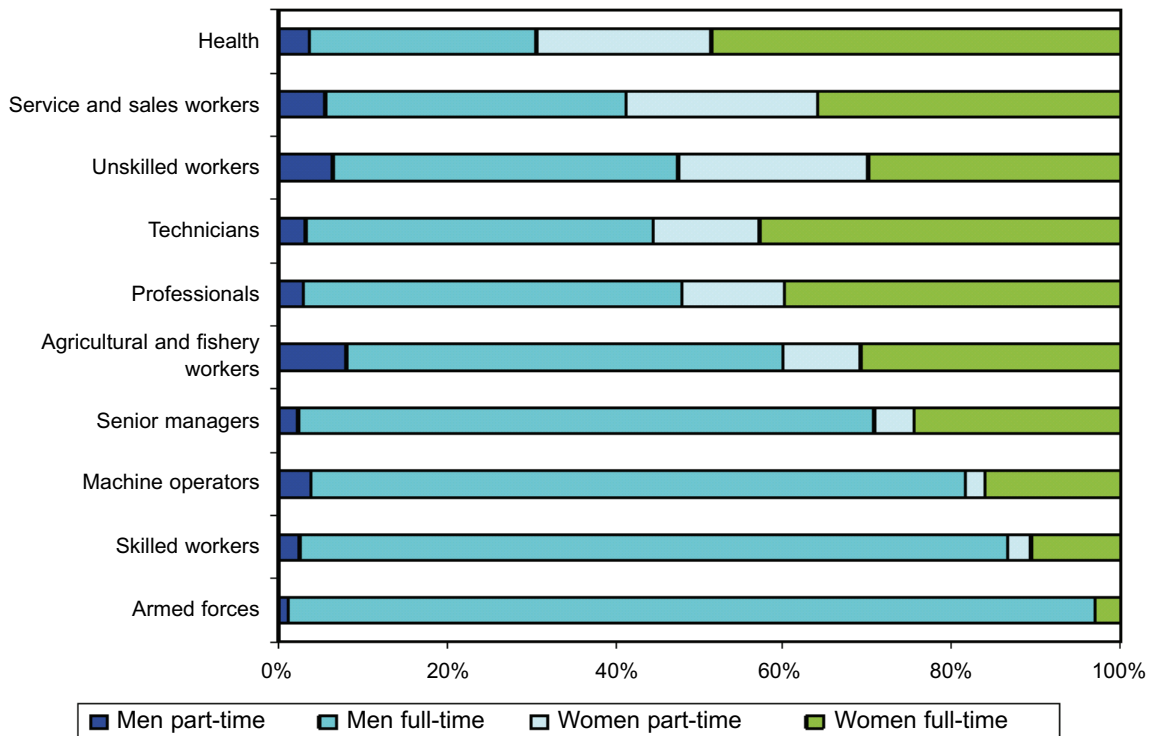


Source: *4EWCS*

Occupational segregation: Patterns of segregation are also found within occupations. Figure 5 provides information on some particular occupations and the gender distribution within them, with a breakdown for full- and part-time workers presented also. Men account for the majority of agricultural and fishery workers, senior managers, machine operators, skilled workers, and armed forces. Women account for the majority of clerical workers, service and sales workers and technicians while men continue to take the majority of senior management roles.

Only two occupational categories in the fourth EWCS – unskilled workers and professionals – are gender balanced in the sense that the shares of both male and female employment is greater than 40%. But looking at the sub-category level of these groups reveals other gender imbalances. For example, within the professional category, women form the majority in the life science, health and teaching professions, and men form the majority in the physical, mathematical and engineering science professions.

Figure 5: Occupational segregation by sector, sex and full-time/part-time status, EU27 (%)

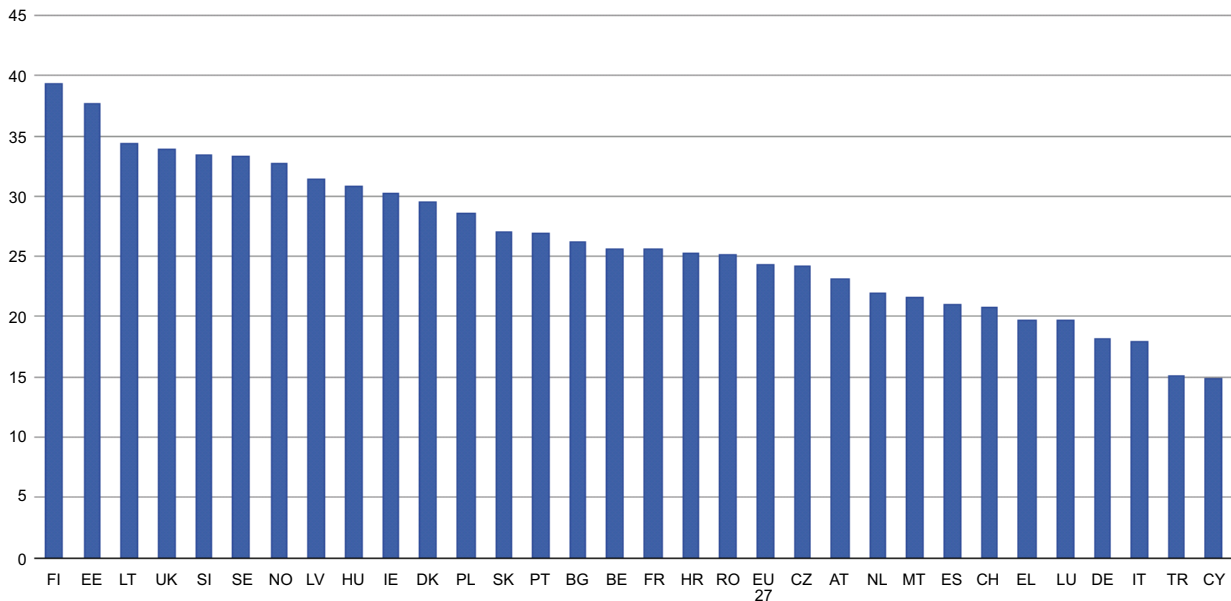


Source: 4EWCS

Sectoral and occupational concentration: Men and women also tend to be concentrated in occupations with predominantly members of the same sex. Most workers are in occupations dominated by their own sex, with less than a quarter of the workforce in gender balanced occupations. 60% of men work in male dominated or very male dominated occupations, and a slightly lower 57% of women work in occupations that are female dominated or very female dominated. 25% of women compared to 21% of men work in mixed occupations (>40% both sexes), and 18% of women compared to 21% of men work in occupations dominated by the opposite sex. Part-time work is most prevalent in female dominated occupations and to a lesser extent in mixed occupations.

Women and men in management and supervisory roles: It has been mentioned above that men make up the majority of senior managers. The EWCS explores the issue of women in management and contains a section on women in supervisory positions. Between 1995 and 2005, the percentage of workers whose immediate supervisor was a woman rose from 21% to 25%. By country, the highest rate was in Finland, where nearly 40% of workers had a female immediate supervisor in 2005. Cyprus and Turkey had the lowest rate with only 15%. In Italy, the lowest of the EU15 Member States, 18% of workers had a female as their immediate boss. These countries fit into a broader picture of northern European countries recording the higher rates, and southern European countries recording the lower rates. These trends are illustrated in Figure 6.

Figure 6: % of employees by Member State whose immediate boss is female.



Source: *4EWCS*

Female supervisors and managers are much more likely to have female subordinates. Only 10% of men in the EWCS had a woman as their immediate supervisor, compared to 42% of women. Where women are bosses, they tend to be the bosses of other women. Also, the proportion of women in supervisory and management roles falls as the position of those they are supervising rises. Women supervisors and managers are also more likely to manage part-time workers and to have management responsibilities in respect of a smaller number of workers than their male counterparts. This data does not reveal a positive picture of equality between men and women in management though incremental change is indicated when we compare the results from the 1995 and 2005 waves of the EWCS.

Conclusions

While women's employment rates remain significantly lower than men's and are still some way short of the Lisbon target of a 60% female employment rate in 2010, the majority of recent employment growth has nonetheless been amongst women. The share of women in the labour market is increasing as the generational mobilisation of women on the labour market, begun in the 1960s and 1970s, continues.

What Eurofound's jobs project data further demonstrates is that women have gained also in terms of quality of employment as well as quantity. In the EU15, while a higher proportion of men gained employment in the better paid jobs, in absolute terms women took a higher proportion of these jobs. In the NMS, there was little difference in the quantity and quality of job growth for men and women, with women faring slightly better than men in the upper income quintile. These are positive developments; however it is important also to note also the disproportionate increase in female employment in lower paid jobs. Were the levels of women in lower paid jobs to further increase, a troubling dichotomy could emerge within women's employment with an over-concentration at either end of the job quality spectrum.

The EWCS data explored the segregation of men and women in different sectors and occupations, which complements the jobs project data and quantifies for example the gendered nature of employment in the health, education and construction sectors. It also revealed that women continue to be under-represented in management roles, where a much lower proportion of women are managers or supervisors than men, and where they rarely manage men or high-skilled workers. The percentage of workers with a female boss rose overall by four percentage points to 25% from 1995 – 2005, a comparatively unremarkable change given the increase in female employment – including female employment in ‘higher end’ jobs - during the same period.

Authors: **Mairead Finn** and **John Hurley**

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European Commission, *Roadmap for equality between women and men 2006-10*

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<http://www.eurofound.europa.eu/publications/htmlfiles/ef0698.htm>

Appendix A: Methodology

The report *Patterns of employment growth in Europe, 1995-2006* was based on analysis of European Labour Force Survey data for 23 European countries (all now Member States). The basic approach was to create for each country a large table of jobs defined as specific occupations (ISCO 2-digit) within specific sectors (NACE 2-digit). The median hourly wage of each of the jobs in that table or matrix (with 28 x 60 = 1680 theoretical cells) was calculated based on other European data sources (Structure of Earning Survey 2002, ECHP-SILC etc) and this was used for ranking all the jobs from the highest to the lowest in terms of pay in each country. Total employment in the middle of the period (2000) was then divided into five equal sized groups, from lowest to highest pay, again for each country using the job ranking specific to that country. This allowed for the decomposition of the overall figures of net employment creation from 1995 to 2006 into five job quality groups or quintiles.

These overall figures could in turn be decomposed to analyse the evolution of employment quality according to different background variables such as permanent/non-permanent employment, part-time/full-time employment or, as in this paper, net changes in employment level by gender.

This approach provides not just quantitative information, but also a qualitative account of the changing quality structure of jobs based on the assumption that median hourly wage is a reasonable proxy for the quality of a job. While there are many other elements of a job that affect its quality beyond its wage, this particular operationalisation is interesting for several reasons. Firstly, it allows for a depth of analysis that would not be possible on such a large scale with a multivariate indicator (comprising, say, measures of work autonomy, job satisfaction, level of work engagement, cognitive richness of a job or any of the many other elements that contribute to make a job better or worse¹⁰). Also, wages are in any case a major component of job quality and tend to correlate very strongly with other components of job quality.¹¹

For a more complete account of the methodology of the jobs project, readers are referred to the main report as well as background technical papers which are available at the following link:

<http://www.eurofound.europa.eu/research/0298.htm#methodology>.

¹⁰ In the European Commission's framework of job quality (the so-called Laeken indicators) there were 31 separate indicators.

¹¹ See for example the European Commission's *Employment in Europe (2008)*, chapter four, for strong empirical support. Link: <http://ec.europa.eu/social/main.jsp?catId=119&langId=en>.

Appendix B: Employment rate 15-64 yrs. Men and Women (Source: Eurostat)

Men	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU15	70.5	70.4	70.6	71.2	72.1	72.8	73.1	72.8	72.7	72.7	73	73.6	74.2
NMS10						66.69	66.72	67.14	67.44	67.82	68.4	69.69	71
BE	66.9	66.9	67.1	67.1	68.1	69.5	68.8	68.3	67.3	67.9	68.3	67.9	68.7
CZ				76	74	73.2	73.2	73.9	73.1	72.3	73.3	73.7	74.8
DK	79.9	80	80.5	79.9	80.8	80.8	80.2	80	79.6	79.7	79.8	81.2	81
DE	73.7	72.6	71.9	71.9	72.8	72.9	72.8	71.8	70.9	70.8	71.3	72.8	74.7
EE				69.6	65.8	64.3	65	66.5	67.2	66.4	67	71	73.2
IE	67.1	67.5	69.1	72.1	74.5	76.3	76.6	75.4	75.2	75.9	76.9	77.7	77.4
GR	72.5	72.7	72.1	71.7	71.1	71.5	71.4	72.2	73.4	73.7	74.2	74.6	74.9
ES	62.5	62.9	64.5	66.8	69.3	71.2	72.5	72.6	73.2	73.8	75.2	76.1	76.2
FR	67.2	67	66.9	67.4	68	69.2	69.7	69.5	69.9	69.4	69.3	69	69.3
IT	66.9	66.7	66.5	66.8	67.3	68	68.5	69.1	69.6	70.1	69.9	70.5	70.7
CY						78.7	79.3	78.9	78.8	79.8	79.2	79.4	80
LV				65.1	64.1	61.5	61.9	64.3	66.1	66.4	67.6	70.4	72.5
LT				66.2	64.3	60.5	58.9	62.7	64	64.7	66.1	66.3	67.9
LU	74.4	74.3	74.3	74.5	74.5	75	75	75.1	73.3	72.8	73.3	72.6	72.3
HU		59.5	59.7	60.5	62.4	63.1	62.9	62.9	63.5	63.1	63.1	63.8	64
MT						75	76.2	74.7	74.5	75.1	73.8	73.3	72.9
NL	75.3	76.5	78.8	80.2	80.9	82.1	82.8	82.4	81.1	80.2	79.9	80.9	82.2
AT	78.5	77.3	77.1	77	77.6	77.3	76.4	76.4	76.4	74.9	75.4	76.9	78.4
PL			66.8	66.5	64.2	61.2	59.2	56.9	56.5	57.2	58.9	60.9	63.6
PT	73.5	73.9	75.5	75.9	75.8	76.5	77	76.5	75	74.2	73.4	73.9	73.8
SI		66	67	67.2	66.5	67.2	68.6	68.2	67.4	70	70.4	71.1	72.7
SK				67.8	64.3	62.2	62	62.4	63.3	63.2	64.6	67	68.4
FI	64.2	65.4	66.2	67.8	69.2	70.1	70.8	70	69.7	69.7	70.3	71.4	72.1
SE	73.1	72.6	71.7	72.8	74	75.1	75.7	74.9	74.2	73.6	74.4	75.5	76.5
UK	75.1	75.5	76.6	77.3	77.7	77.8	78	77.7	77.8	77.9	77.7	77.5	77.5

Patterns of recent employment growth in the EU: implications for gender equality

Women	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EU15	49.7	50.2	50.8	51.6	53	54.1	55	55.6	56.2	57	57.8	58.8	59.7
NMS10						52.04	52.36	52.79	53.23	53.2	53.92	55.22	56.5
BE	45	45.4	46.5	47.6	50.4	51.4	51	51.4	51.8	52.6	53.8	54	55.3
CZ				58.7	57.4	56.9	56.9	57	56.3	56	56.3	56.8	57.3
DK	66.7	67.4	69.1	70.2	71.1	71.6	72	71.7	70.5	71.6	71.9	73.4	73.2
DE	55.3	55.3	55.3	55.8	57.4	58.1	58.7	58.9	58.9	59.2	60.6	62.2	64
EE				60.3	57.8	56.9	57.4	57.9	59	60	62.1	65.3	65.9
IE	41.6	43.2	45.9	49	52	53.9	54.9	55.4	55.7	56.5	58.3	59.3	60.9
GR	38.1	38.7	39.3	40.5	41	41.7	41.5	42.9	44.3	45.2	46.1	47.4	47.9
ES	31.7	33.1	34.6	35.8	38.5	41.3	43.1	44.4	46.3	48.3	51.2	53.2	54.7
FR	52.1	52.2	52.4	53.1	54	55.2	56	56.7	58.2	58.2	58.5	58.8	60
IT	35.4	36	36.4	37.3	38.3	39.6	41.1	42	42.7	45.2	45.3	46.3	46.6
CY						53.5	57.2	59.1	60.4	58.7	58.4	60.3	62.4
LV				55.1	53.9	53.8	55.7	56.8	57.9	58.5	59.3	62.4	64.4
LT				58.6	59.4	57.7	56.2	57.2	58.4	57.8	59.4	61	62.2
LU	42.6	43.8	45.3	46.2	48.6	50.1	50.9	51.6	50.9	51.9	53.7	54.6	56.1
HU		45.2	45.4	47.2	49	49.7	49.8	49.8	50.9	50.7	51	51.1	50.9
MT						33.1	32.1	33.9	33.6	32.7	33.7	33.4	35.7
NL	53.8	55.8	58	60.1	62.3	63.5	65.2	66.2	66	65.8	66.4	67.7	69.6
AT	59	58.4	58.6	58.8	59.6	59.6	60.7	61.3	61.6	60.7	62	63.5	64.4
PL			51.3	51.7	51.2	48.9	47.7	46.2	46	46.2	46.8	48.2	50.6
PT	54.4	54.9	56.5	58.2	59.4	60.5	61.3	61.4	61.4	61.7	61.7	62	61.9
SI		57.1	58	58.6	57.7	58.4	58.8	58.6	57.6	60.5	61.3	61.8	62.6
SK				53.5	52.1	51.5	51.8	51.4	52.2	50.9	50.9	51.9	53
FI	59	59.4	60.3	61.2	63.4	64.2	65.4	66.2	65.7	65.6	66.5	67.3	68.5
SE	68.8	68.1	67.2	67.9	69.4	70.9	72.3	72.2	71.5	70.5	70.4	70.7	71.8
UK	61.7	62.5	63.1	63.6	64.2	64.7	65	65.2	65.3	65.6	65.8	65.8	65.5

EF/09/35/EN